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BEFORE THE  
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION  
UNITED STATES DEPARTMENT OF LABOR

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DOCKET H-122

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SUBMITTAL OF POST HEARING  
"POSITION STATEMENTS, BRIEFS, RECOMMENDATIONS  
AND REBUTTAL OF MATERIAL SUBMITTED  
DURING THE POST-HEARING COMMENT PERIOD"

APPENDIX ONE

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Appendix One contains references to the record relevant to designated topics at issue with respect to the Proposed Rule.

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VOLUME 1

ECONOMIC AND PRACTICAL CONSIDERATIONS

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## **Appendix 1**

**OSHA Inaccurately Assessed the  
Significant Costs Associated with  
Smoking Rooms**

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## Appendix 1-A

### OSHA Grossly Underestimated Smoking Room Installation Costs

#### Literature

*The New Horizon: Indoor Environmental Quality, Environment, Consulting-Specifying Engineer*, June 1993 Supplement (Philip Morris, Ex. 416-4)

*Smoking Shelter: Federal Employees' Smoking Shelter Looks Like Bus Stop But Has Rolls-Royce Price Tag*, Associated Press, April 19, 1995 (Philip Morris, Ex. 416-29)

*St. Louis Developer Begins to Provide Smoking Lounges; Policy Was Initiated After Tenant Smoking Bans Forced Smokers Into Lobbies, Restrooms*, Building Design & Construction, p. 26, September 1989. (Philip Morris, Ex. 416-359)

Letter from Camille A. Exum to Charlotte Hall, Veteran's Home, May 1, 1995, request for MOSH variance, attaching estimate for smoking room costs. (Philip Morris, Ex. 416-361)

*Ready-made Smoking 'Shelters A Big Hit for Michigan Man'*, Barry Rohan, Knight-Ridder/Tribune Business News, April 13, 1994 (Philip Morris, Ex. 416-422)

Testimony of Gray Robertson, President Healthy Buildings International, Inc., House Energy/Health and the Environment Antismoking Regulations, Federal Document Clearing House Congressional Testimony, March 17, 1994 (Philip Morris, Ex. 416-512)

*Business Owners Are Challenging Smoking Ban*, Francine Thistle Tyler, The Seattle Times, October 10, 1994 (Philip Morris, Ex. 416-671)

Comments of Philip Morris, May 17, 1994, Before the Maryland Department of Licensing and Regulation, Division of Labor and Industry, In Re: Proposed Prohibition on Smoking in the Workplace (Philip Morris, Ex. 416-695)

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*Cost Estimate For Typical Smoking Lounges In High Rise Office Buildings, and Manufacturing Plants, The Fletcher Group (Philip Morris, Ex. 427-1).*

## **Testimony**

### **1. Installation of Smoking Rooms Would Be Costly Under the Proposed Rule**

- Separate segregated facility for smokers in the plant would be costly and expensive from two viewpoints. First, modifications to the physical plant itself would be expensive and second, modification would take valuable floor space from production. [Kenneth Snella, Berkshire Electric Cable Company, March 3, 1995, Tr. pp. 14,589-14,590]
- The costs of the proposed rule "seem to be prohibitive. I'm looking at probably \$40,000 to \$50,000 to put in a separate smoking area. The money needed for this is quite a bit of an expenditure to us." [Warren Wild, McBride's, Inc., February 10, 1995, Tr. p. 13,843]. If I built a smoking lounge, it would have to be constructed inside the facility. There would be zoning problems to construct it outside the existing facility. With separate ventilation and the additional room, the smoking lounge would cost about \$40,000 to \$50,000. [Warren Wild, McBride's, Inc., February 10, 1995, Tr. p. 13,845].
- Based upon estimates from two builders, it will cost approximately \$75,000 to build a designated smoking room. [Steven Dorobiala, Pest-control company, November 1, 1994, Tr. p. 4,731].
- Accommodating employees that smoke under the Proposed Rule would require a 240-square-foot designated smoking room. The recurring rental costs for such a room would be \$8/square foot. [Steven Dorobiala, November 1, 1994, Tr. p. 4,736].
- Estimates in OSHA's proposed rulemaking for building a totally enclosed smoking area are about \$25,000 per 1000 square feet. It would cost billiard rooms in the United States hundreds of thousands of dollars to segregate their smoking customers by building smoking rooms. That is impractical and would bankrupt many billiard rooms. [Edward W. Gillis, Fast Eddy's Billiard Cafe, October 24, 1994, Tr. p. 3,604-3,605].

- The existing building where my firm is located has a package roof top air handling which serves the entire facility. That system will require modifications to serve only one of the spaces and a new exhaust system would have to be installed in the smoking room. Additionally, modification such as change in lighting and additional electrical current would be necessary for the HVAC system changes. [Michael Purtell, Gipes Associates - Architectural firm, December 2, 1994, Tr. p. 8,143-8,144].
- I do not have the money to build a smoking room. [Marge Dahlquist, Dahlquist Realty, February 21, 1995, Tr. p. 14,012].
- A contractor estimated it would cost \$49,000 to build a smoking room. The contractor gave the estimates, but would not guarantee the function of a negative pressured room when the building is already under negative pressure. [Frank Walker, Cinderella Cleaners, February 21, 1995, Tr. p. 14,029-14,030; 14,037-14,038].
- The landlord would permit construction of a designated smoking room meeting the specifications of the standard, but the hair salon would have to pay for it. [Rita Underwood, beauty shop, November 1, 1994, Tr. p. 4,823].
- All the profits since I started the business have gone back into the business and to my employees, to purchase current equipment which creates more jobs and to the employee benefit package such as health insurance, vacations, and paid holidays. Building a separate room is not an option I can afford. [Phil Pederson, DC Machine, February 3, 1995, Tr. p. 13,252].
- Regarding compliance with the OSHA regulation, I couldn't do that at all. I'd have to change all the heating and air conditioning vents. I'd have to perhaps make a little room someplace where I don't have the room for a designated area. The costs would be extremely high. The forced air heat and forced air conditioning and all those ducts have to be changed and moved and all that kind of stuff. It would be a little bit of a steep problem for me. [Peter Karangelon, Kent Lounge and the Baltimore County Beverage Association, February 3, 1995, Tr. p. 13,325].
- Brengie does not have the space or the capital to construct a ventilated smoking room. Contractors have indicated the cost to add on a smoking room could run up to \$40,000. [Matthew

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Swanson, Brengie Sales & Service Ford & Chrysler dealership, February 2, 1995, Tr. p. 13,197].

- We would have to make an addition to our building. It is not feasible to build a smoking room within our existing facilities at a cost of \$50,000 to \$100,000. [George E. Staples, President, Cinch Tight Corporation, February 2, 1995, Tr. p. 13,237].
- I cannot afford to build a designated smoking area that would meet the requirements of the proposed OSHA rule. [Eddy Giel, University Place Restaurant, October 24, 1994, Tr. p. 3,545, 3,550].
- It would be very cost prohibitive to build a separate room for smoking employees. [Gaines Grantham, Owner and Operator of two businesses, video rental store and general insurance agency, March 13, 1995, Tr. p. 15,017].
- An estimate from a construction firm showed that it would cost between \$40,000 to \$60,000 to construct a designated smoking area that met the specifications of the Washington Standard. [Diane Michalek, Aviation West, October 27, 1994, Tr. p. 4,068].

**2. Businesses Are Already Over-Crowded, With Limited or No Space Available for Smoking Rooms**

- The company is already crowded for work space. It may not be financially or practically feasible to add more space for a smoking area. [Karol Brown, Point to Point, Inc., February 10, 1995, Tr. p. 13,871].
- A separate room is impractical for several reasons. I simply do not have the room for it. [Phil Howell, Retail Motorcycle Business, February 9, 1995, Tr. p. 13,810].
- We occupy three offices. I have one office, my partner has an office, and our secretary has an office, so there is no additional space. [Lin Boyd, Independent Insurance Agent, February 7, 1995, Tr. p. 13,580].
- No part of the present facility is available to devote to a designated smoking room. [Steven Dorobiala, Pest-control company, November 1, 1994, Tr. p. 4,731].

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- There is not enough room in the building to put a smoking room. To build a smoking room, we would have to put on an addition to the building. She leases the building and do not know whether the building owner could supply the room. Even if there was an addition made for a smoking room, the rent would increase. [Lucy Welejski, Dothan Instant Printing, February 24, 1995, Tr. p. 14196].
- Our salon is too small to have a space for smoking only and costs are prohibitive as well. There really isn't room in our salon. We have five employees right now and we can possibly have up to seven and there would be no area to put a room specifically for smoking. [Rita Underwood, November 1, 1994, Tr. p. 4,814 and 4,823].
- The space is limited in the facility and no additions are planned for any time in the future since it is not affordable at this time. [Ruth Cole Dusenbury, Speer Cushion, January 31, 1995, Tr. p. 12,936].
- At this time, we currently have no room for a smoking room. We would have to build an addition to our facility [Philip Pederson, DC Machine, February 3, 1995, Tr. p. 13,252-13,253].
- We have an old building which is not amenable to construction of a separately ventilated smoking room. Thus, we would have to add an addition. [George E. Staples, President, Clinch Tight Corporation, February 2, 1995, Tr. p. 13,237].
- The Company would incur substantial capital costs to construct a separate structure with ventilation systems since there is no current space that could be modified to create a smoking room. [A.T. (Tom) VanEtten, Griffen & Company, January 31, 1995, Tr. p. 12,959].
- Sioux Merchant Patrol is located in a small six room building with an attached garage that has a similar layout of a small house. It is not big enough to add or section off a special place for smokers. [Grace Wingen, Sioux Merchant Patrol, Inc., February 1, 1995, Tr. p. 13,101].
- Currently there is no room to build a separate smoking room. [Gaines Grantham, Owner and Operator of two business, video rental store and general insurance agency, March 13, 1995, Tr. p. 15,018].
- I have neither the money nor the space to build a separate smoking room in her facility. [Carmen Delayncera, Owner of travel agency, March 13, 1995, Tr. p. 15,079-15,080].

- The company has no extra space to even consider building a small smoking room. [Robert Collison, Kendall-Collison, Inc., February 21, 1995, Tr. p. 13,999].
- We have no space to build a smoking room or add to the building because it would take away the little parking we have. [Tami Dobrovolny, Big Red Liquor, February 9, 1995, Tr. p. 13,766].
- Forcing us to comply with the proposed regulation would require an entirely different facility because we don't have the area within the present bounds and we would also have to buy a different lot because we are limited as to the area on which we could build. [Harley Sackett, Filter Car, Inc., February 8, 1995, Tr. p. 13,747].
- The store is only 1,000 sq. ft. with 24 tables and not much work space. It is surrounded on both sides and there is no room for expansion to build an extra smoking room. [Bradley Adams, Subway Sandwich Shop, February 1, 1995, Tr. p. 13,134].
- I conclude smoking lounges' environmental atmosphere would require very significant expenditures as major additions to HVAC building components would be needed. [Mr. Ronald Tamol, Ronnel Co., November 22, 1994, Tr. p. 7,238].
- The separately ventilated non-work areas described as the only allowable smoking areas, for the most part do not exist. In most cases they are not feasible to create. [Diane Michalek, Aviation West, October 27, 1995, Tr. p. 4,050].
- Employers who lease their premises are unable to build the designated smoking areas specified in the Washington State regulation. [Diane Michalek, Aviation West, October 27, 1995, Tr. p. 4,051].
- I share the facility with at least a dozen other businesses. There is no available room that could be transformed into any kind of smoking lounge. No room can be built on to it without straining the integrity of the structure. [Diane Michalek, Aviation West, October 27, 1994, Tr. p. 4,066-4,067].
- I feel like it would be really out of reason for us to try to construct some type of smoking room for our employees to sit in. We don't have the room nor the money to invest in something like that. [Margie Ronson, Music City Auto Car Products, February 3, 1995, Tr. p. 13,314].

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- With limited warehouse storage and showroom space as it is, it is hard to imagine giving up either for a smoking area. [Lee Saufley, Builders Supply Window Company & Hardware Store, Standord, Kentucky, February 2, 1995, Tr. p. 13,216].
- Our business makes use of every square inch of its floor space for its operation. To implement the regulation that you propose, we would have to convert a classroom. We can no longer teach. [Ernest Otten, The Carpenter's Shoppe, February 8, 1995, Tr. p. 13,753].

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**Appendix 1-B**

**Nationwide Cost Estimate for Construction  
of "Smoking Rooms"**

**[See Attached Calculation]**

## NATIONWIDE COST ESTIMATE FOR CONSTRUCTION OF "SMOKING ROOMS"

This series of schedules is a forecasting model for costs related to providing smoking rooms that meet OSHA proposed rules. The model estimates the one-time construction cost for smoke rooms.

In order to provide flexibility in the model, costs are presented by major industry category (agricultural services, mining, construction, etc.) and by strata of establishment employee size (less than 20 employees, 20 to 90, etc.).

The model calculates the nationwide one-time construction cost as follows:

Total number of establishments in U.S.

X      Percentage of establishments who will construct smoke rooms  
=      Total number of smoke rooms to be constructed  
X      Cost to build a smoke room  
=      Total one-time construction cost

Using the assumptions explained on the next page, the model yields the following results:

	<u>Low Estimate</u>	<u>High Estimate</u>
• One-time construction costs	\$25,281,120,000	\$102,241,720,000
• Annual cost assuming 20 year financing at 10% interest rate	\$ 2,969,510,869	\$ 12,009,274,070

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## MODEL ASSUMPTIONS

SCHEDULE #	ASSUMPTION	SOURCE
1	Number of establishments by number of employees	Statistical Abstract of the United States - 1994 - Table 845.
	Percentage of establishments who will construct smoke rooms	National Economic Research Associates, Inc. (NERA); Post-Hearing Comments on Proposed Rules on Indoor Air Quality; July 6, 1995; Dr. Albert L. Nichols and Dr. Mark Dreyfus; page 17 estimates that between 28% and 61% of establishments not already restricting smoking would participate. NERA's Comments on Economic Costs and Benefits of OSHA's Proposed Rules on Smoking in the Workplace, August 11, 1994, page 34 estimates those not restricting smoking to be 58% (100% - 42%). Therefore, the conservative estimate of 16% (58% X 28%) is used for the low estimate and 35% for the high estimate in these calculations.
	Cost to construct smoke rooms	Cost Estimates for Typical Smoking Lounges; August 1995; George W. Fletcher, PE, Jim Neal, AIA, and Warren Maddox, PE. For the purpose of the low estimate, the conservative assumption is that all smoke rooms will be "retrofits". Therefore, only direct costs related to HVAC mechanical requirements, other direct costs related to the HVAC installation, and related overhead, professional fees, and profit were assumed to be incurred. Further, it was conservatively assumed that all retrofits would be performed on "small office buildings". A low estimate of \$25,485 is assumed.
		This same document provides a range of construction costs from \$31,885 to \$100,410. (See pages 2, 3). For the high estimate, a mid-range cost of \$47,116 is used.
2	Low estimate of total smoke room construction cost	Schedule 1 X % who will construct smoke rooms X cost to construct smoke rooms.
3	High estimate of total smoke room construction cost	Schedule 1 X % who will construct smoke rooms X cost to construct smoke rooms.

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## Nationwide Construction Cost Estimate for "Smoking Rooms"

Schedule 1 -- ESTABLISHMENTS BY INDUSTRY BY NUMBER OF EMPLOYEES (table 845)

INDUSTRY	lt 20 emp	20 to 99 emp	100 to 499 emp	500 to 999 emp	1000 and up emp	TOTAL
Agricultural Services	87,000	4,000	0	0	0	91,000
Mining	24,000	5,000	1,000	0	0	30,000
Construction	532,000	41,000	4,000	0	0	577,000
Manufacturing	249,000	88,000	31,000	4,000	2,000	374,000
Transportation	199,000	37,000	8,000	1,000	0	245,000
Wholesale Trade	409,000	62,000	7,000	0	0	478,000
Retail Trade	1,314,000	209,000	24,000	1,000	0	1,548,000
Finance and Insurance	521,000	48,000	7,000	1,000	0	577,000
Services	1,920,000	180,000	37,000	3,000	2,000	2,142,000
Other	137,000	0	0	-1,000	2,000	138,000
<b>Totals</b>	<b>5,392,000</b>	<b>674,000</b>	<b>119,000</b>	<b>9,000</b>	<b>6,000</b>	<b>6,200,000</b>

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Schedule 2 -- LOW EST.MATE FOR TOTAL SMOKEROOM CONSTRUCTION COST

INDUSTRY	lt 20 emp	20 to 99 emp	100 to 499 emp	500 to 999 emp	1000 and up emp	TOTAL
Agricultural Services	\$354,751,200	\$16,310,400	\$0	\$0	\$0	\$371,061,600
Mining	\$97,862,400	\$20,388,000	\$4,077,600	\$0	\$0	122,328,000
Construction	\$2,169,283,200	\$167,181,600	\$16,310,400	\$0	\$0	2,352,775,200
Manufacturing	\$1,015,322,400	\$358,828,800	\$126,405,600	\$16,310,400	\$8,155,200	1,525,022,400
Transportation	\$811,442,400	\$150,871,200	\$32,620,800	\$4,077,600	\$0	999,012,000
Wholesale Trade	\$1,667,738,400	\$252,811,200	\$28,543,200	\$0	\$0	1,949,092,800
Retail Trade	\$5,357,966,400	\$852,218,400	\$97,862,400	\$4,077,600	\$0	6,312,124,800
Finance and Insurance	\$2,124,429,600	\$195,724,800	\$28,543,200	\$4,077,600	\$0	2,352,775,200
Services	\$7,828,992,000	\$733,968,000	\$150,871,200	\$12,232,800	\$8,155,200	8,734,219,200
Other	\$558,631,200	\$0	\$0	(\$4,077,600)	\$8,155,200	562,708,800
<b>TOTAL</b>	<b>\$21,986,419,200</b>	<b>\$2,748,302,400</b>	<b>\$485,234,400</b>	<b>\$36,698,400</b>	<b>\$24,465,600</b>	<b>\$25,281,120,000</b>

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## Nationwide Construction Cost Estimate for "Smoking Rooms"

### Schedule 3 -- HIGH ESTIMATE FOR TOTAL SMOKEROOM CONSTRUCTION COST

INDUSTRY	lt 20 emp	20 to 99 emp	100 to 499 emp	500 to 999 emp	1000 and up emp	TOTAL
Agricultural Services	\$1,434,682,200	\$65,962,400	\$0	\$0	\$0	\$1,500,644,600
Mining	\$395,774,400	\$82,453,000	\$16,490,600	\$0	\$0	494,718,000
Construction	\$8,772,999,200	\$676,114,600	\$65,962,400	\$0	\$0	9,515,076,200
Manufacturing	\$4,106,159,400	\$1,451,172,800	\$511,208,600	\$65,962,400	\$32,981,200	6,167,484,400
Transportation	\$3,281,629,400	\$610,152,200	\$131,924,800	\$16,490,600	\$0	4,040,197,000
Wholesale Trade	\$6,744,655,400	\$1,022,417,200	\$115,434,200	\$0	\$0	7,882,506,800
Retail Trade	\$21,668,648,400	\$3,446,535,400	\$395,774,400	\$16,490,600	\$0	25,527,448,800
Finance and Insurance	\$8,591,602,600	\$791,548,800	\$115,434,200	\$16,490,600	\$0	9,515,076,200
Services	\$31,661,952,000	\$2,968,308,000	\$610,152,200	\$49,471,800	\$32,981,200	35,322,865,200
Other	\$2,259,212,200	\$0	\$0	(\$16,490,600)	\$32,981,200	2,275,702,800
<b>TOTAL</b>	<b>\$88,917,315,200</b>	<b>\$11,114,664,400</b>	<b>\$1,962,381,400</b>	<b>\$148,415,400</b>	<b>\$98,943,600</b>	<b>\$102,241,720,000</b>

**C**

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## Appendix 1-C

### **OSHA Grossly Underestimated the Number of Businesses that Would Provide Smoking Rooms**

#### **Testimony**

- The two buildings that Abrams Moving Company are located in are 3-1/2 miles away from the main site and people do work in that building. Because of the distance between the two buildings, Abrams Moving Company would have to install two separate smoking lounges in each building. [Arthur Abrams, Abrams Moving & Storage, Detroit, Michigan, February 1, 1995, Tr. p. 13,064]
- To comply with the OSHA standard as written, Tee Jay's would have to construct 24 designated smoking rooms, some of which would be in the middle of plants. Some of these buildings are high as 30 feet which require air flow going all the way up through the ceiling. [Murphy Heird, Tee Jay's Manufacturing, Florence, Alabama, February 6, 1995, Tr. pp. 13,461-13,462]
- I would have to build multiple smoking rooms because the warehouse that I own is extremely large and it would not be feasible to build one room where employees would have to walk great lengths to go and smoke. [Owen Pass, March 2, 1995, Tr. pp. 14,505-14,506]
- We would need more than one smoking room because of the large size of operation. [Jimmy Allison, Allison Wholesale, March 2, 1995, Tr. p. 14,513]
- OSHA estimates there would be 145,000 lounges that would be built. That's about 2.2 percent of commercial establishments, which seems low. It means about one in 50 would be providing them. However, it turns out that OSHA assumes all but 1,200 of those 145,000 lounges would be built in hotels, bars, or restaurants, because it assumes that half of them would install lounges. On the other hand, it assumes that 1,177 will be built in establishments other than in bars, restaurants, and hotels, which is 0.2 percent or one in 5,000 of such establishments. [Albert Nichols, NERA, December 6, 1995, Tr. pp. 8,522; 8,526].

- OSHA doesn't explain why it assumes that no government buildings anywhere in this country would provide smoking lounges, but it assumes that they will not. It also assumes that all of those government agencies are located in single establishment buildings. [Albert Nichols, NERA, December 6, 1995, Tr. p. 8,524].
- OSHA assumed that not only would an establishment have to be large, it would have to be located in a large building, which OSHA defined, again, with no justification, to be three stories or more, and 100,000 square feet or more, which is a very large building. [Albert Nichols, NERA, December 6, 1995, Tr. p. 8,525].
- We estimated that from 25 to 60 percent of firms would provide a smoking room. As a result, we estimated that there would be about 6.7 to 16 million square feet of lounge space. That's actually smaller than the OSHA total, but if one compares it to the portion in OSHA's estimates that's not for bars, restaurants or hotels, it's substantially larger. [Albert Nichols, NERA, December 6, 1995, Tr. pp. 8,528-8,529].
- I would also point out that the OSHA worst case estimate of the costs of providing smoking lounges have a few minor holes in it as far as I can judge as a businessman. You excluded all buildings under 100,000 square feet. You excluded all but buildings with less than three floors. Fifty percent of all remaining buildings was arbitrarily thrown out. You then said let's take 25 percent of the remainder, the net effect being that you are presuming smoking lounges will be built in only 4 percent of the buildings in this country. I find that surprising. We find them in a lot more than that already. [Gray Robertson, Healthy Building International, October 14, 1994, Tr. p. 3,295].
- OSHA's estimate for smoking lounges is clearly too low. That's there. The principal issues are the cost per lounge is too low, there are too few lounges in large buildings and too few establishments are estimated to have lounges. It is clearly an underestimate for OSHA to assume that no more than one smoking lounge would be built any place in the country in a building. The number of smoking lounges estimated by OSHA is clearly too small. [Henry Beale, OSHA Consultant, January 13, 1995, Tr. pp. 11,143, 11,245]

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## Appendix 1-D

### OSHA's Cost Analysis of Smoking Rooms Did Not Account for All Costs of Space, Including Lease and Maintenance Costs

#### Literature

*Benchmarks 1991, Research Report #7, International Facility Management Association (Philip Morris, Ex. 416-245)*

*Benchmarks II, Research Report #13, International Facility Management Association, 1994, (Philip Morris, Ex. 416-311)*

*St. Louis Developer Begins to Provide Smoking Lounges; Policy Was Initiated After Tenant Smoking Bans Forced Smokers Into Lobbies, Restrooms, Building Design & Construction, p. 26, September 1989. (Philip Morris, Ex. 416-359)*

Testimony of Gray Robertson, President Healthy Buildings International, Inc., House Energy/Health and the Environment Antismoking Regulations, Federal Document Clearing House Congressional Testimony, March 17, 1994 (Philip Morris, Ex. 416-512)

#### Testimony

- A smoking room would have no value, could not pay for itself, and would only be a financial liability and burden to the company. I probably could not get bank financing to build a smoking room since it would add no value to the building. I would have to borrow money to build the room, personally guarantee the loan, and pay interest on the loan. I would have to increase production to pay the smoking room costs. I would have to add machinery to handle the increase in work load, if he could get the increase. The payroll taxes and workers' compensation costs would increase. I would have to pay additional taxes on the "improvement", i.e., smoking room. [Frank Walker, Cinderella Cleaners, February 21, 1995 Tr. p. 14, 030-14, 031]

- Owners of special retail stores will be unable to provide a designated smoking area in accordance with the OSHA rule. Moreover, to build such a room would be cost-prohibitive. Building smoking room would result in additional recurring costs such as extra rent and other expenses. [Mark Hodroff, Retail Specialty Pet Store, March 13, 1995, Tr. pp. 14,996-14,997]
- Designated smoking rooms in restaurants are impractical and would be costly. There are costs involved in remodeling or building the room, rent to be paid on nonproductive space, and loss of sales that the restaurant would have if it had used the smoking room space for production. [W. W. Naylor, owns Naylor Restaurant and is treasurer of the National Restaurant Association, October 24, 1994, Tr. p. 3,672-3,673]
- A separate segregated facility for smokers in the plant would be costly and expensive from two viewpoints. First, modifications to the physical plant itself would be expensive and second, modifications would take valuable floor space from production. [Kenneth Snella, Berkshire Electric Cable Company, March 3, 1995, Tr. pp. 14,589-14,590].
- This rule would also mean higher utility bills, loss of future revenue, because any space that would be used for smoking employees would not be able to be rented out or leased in the future. [J. Paige DuBois, Young & Associates, February 6, 1995, Tr. p. 13,439]
- The company is already crowded for work space. It may not be financially or practically feasible for them to add more space (for a smoking area) when they already are crowded. [Karol Brown, Point to Point, Inc., February 10, 1995, Tr. p. 13,871].
- I lease the building and do not know whether the building owner could supply the room. Even if there was an addition made for a smoking room, my rent would increase. [Lucy Welejski, Dothan Instant Printing, February 24, 1995, Tr. p. 14,196]
- I don't feel that I can establish separate working areas for both smokers and non-smokers under our current volume of production. [Robert Berkner, Independent Feed and Grain Merchant, February 7, 1995, Tr. p. 13,564].
- The company does not have the space inside their facility to build a separate smoking room. Thus, it would have to build a new structure attached to the current building. The company

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cannot afford that expense. It would take capital away from future expansions and the company would have to pay property taxes each year for the smoking room. [Kevin Sandberg, Sandberg Implement Co., February 21, 1995, Tr. pp. 13,979-13,980].

- In the commercial rental property I am constructing, I would be unable to afford the added cost for a smoking room for each rental space. I would have to make the commercial rental property I am constructing smoke-free because I cannot afford the cost of adding a smoking room for each rental space. Banning smoking in the rental spaces would adversely affect my chances of obtaining good renters. That, in turn, would jeopardize me economically. I am unable to add the smoking rooms to my commercial rental space, it may make it more difficult to find renters. Renters may go elsewhere for rental space where their employees can have a smoking room. However, if I raised my rents in order to put in smoking rooms, I could lose tenants who did not want smoking rooms and did not want to pay the higher rent. Either way, I may lose tenants. [Merritt Carlson, Fargo Transmissions, a commercial rental property, February 24, 1995, Tr. pp. 14,176-14,177; 14,180-14,182].
- DC Machine does not have the cash to construct a separately ventilated smoking room, therefore, the ability to construct such a room relies upon going into additional debt with the bank by borrowing money. [Phil Pederson, DC Machine, February 3, 1995, Tr. pp. 12,261-12,262].
- As a landlord, I have multi-tenant buildings. Providing smoking rooms will be a cost I have to bear. Likely scenario: tenant says, why should I pay for an area that I will never use and why should I have to increase the cost of my rent, of my overhead, to subsidize other tenants who do have employees that smoke. [Nicholas Marino, Family Entertainment Centers, February 9, 1995, Tr. pp. 13,798-13,799].
- We don't even own the building we're in. We lease about 33,000 square feet. We would really have no control over building a separate room in our building. Everything would have to be approved by the building owner and, as far as I can see, he would have no reason to expend the money because he really has nothing to gain or lose by it. [Gail Vesey, Argo Industries, February 7, 1995, Tr. p. 13,540].
- My landlord is opposed to making any improvements on this property whatsoever. I can't do it without ownership of this property and to date I have tried and failed. [Robert

Berkner, Independent Feed and Grain Merchant, February 7, 1995, Tr. p. 13,565].

- I do not own the building. I lease it. I would not feel comfortable having to spend money to remodel or add on to a building which he does not own. [Tim Urban, Sioux Empire Hobbies, Inc., February 21, 1995, Tr. pp. 13,991-13,992].
- The landlord would permit construction of a designated smoking room meeting the specifications of the standard, but the hair salon would have to pay for it. [Rita Underwood, November 1, 1994, Tr. p. 4,823].
- Implementation of the proposed rule would create a conflict between myself, as a landlord, and the various tenants in that we would have to negotiate on who would pick up the cost of the smoking lounge. However, ultimately, I feel that as landlord, I would have to give on this issue especially if the competition could afford to build the smoking lounges. [Earl Allen, Allen Realty Company, February 28, 1995, Tr. pp. 14,379-14,380]
- The proposed rule fails to hold accountable employers who are actually in control of or have access to building systems to implement the proposed rule, e.g., a tenant in a multi-tenant facility as an employer who is not in charge of or does not have access to a building's system. [Jan Collins, Executive Director of the Workplace Health and Safety Counsel, October 11, 1994, Tr. pp. 2,718-2,719].
- Because our office space adjoins another employer's office space and smoke from the other employer can pass into their offices, the only way to have a smoking room in the commercial office building would be for the landlord to convert one of his rental units into a smoking room. The landlord would not do that. If the landlord were to do it, he would either lose the rent of the rental space or recoup his costs by charging the renters. [Robert Collison, Kendall-Collison, Inc., February 21, 1995, Tr. pp. 13,999-14,000].

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III

Appendix 1-E

Nationwide Cost Estimate for Lease  
and Maintenance of "Smoking Rooms"

[See Attached Calculation]

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**NATIONWIDE COST ESTIMATE FOR LEASE AND MAINTENANCE  
OF "SMOKING ROOMS"**

This series of schedules is a forecasting model for costs related to providing smoking rooms that meet OSHA proposed rules. The model produces estimates for the annual recurring cost for leasing and maintaining smoke rooms.

In order to provide flexibility in the model, costs are presented by major industry category (agricultural services, mining, construction, etc.) and by strata of establishment employee size (less than 20 employees, 20 to 90, etc.).

The model calculates the annual lease and maintenance cost of smoke rooms as follows:

Total number of establishments in the U.S.

X      Percentage of establishments who will construct smoke rooms  
=      Total number of smoke rooms to be constructed  
X      Smoke room square feet  
=      Total smoke room square feet  
X      Lease and operating cost per square foot  
=      Total annual smoke room lease and maintenance cost

Using the assumptions explained on the next page, the model yields the following results:

	<u>Low Estimate</u>	<u>High Estimate</u>
Annual recurring lease and maintenance cost	\$1,664,905,920	\$3,641,981,700

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MODEL ASSUMPTIONS

SCHEDULE #	ASSUMPTION	SOURCE
1	Number of establishments by number of employees	Statistical Abstract of the United States - 1994 - Table 845.
	Percentage of establishments who will construct smoke rooms	National Economic Research Associates, Inc. (NERA); Post-Hearing Comments on Proposed Rules on Indoor Air Quality; July 6, 1995; Dr. Albert L. Nichols and Dr. Mark Dreyfus; page 17 estimates that between 28% and 61% of establishments not already restricting smoking would participate. NERA's Comments on Economic Costs and Benefits of OSHA's Proposed Rules on Smoking in the Workplace, August 11, 1994, page 34 estimates those not restricting smoking to be 58% (100% - 42%). Therefore, the conservative estimate of 16% (58% X 28%) is used for the low estimate and 35% for the high estimate in these calculations.
	Smoke room square footage	Smoke rooms were assumed to be at least 150 square feet. This assumption is probably conservative since companies with more than 500 employees would likely have larger smoking rooms.
2	Lease and maintenance cost per square foot	International Facilities Management Association (IFMA) Research Report #13, Page 60. The Building Owner Management Association (BOMA) has estimated this cost considerably higher at \$17 per square foot.
3	Low estimate for total annual smoke room lease and maintenance cost	Schedule 1 X % who will construct smoke rooms X 150 square feet X Schedule 2.
4	High estimate for total annual smoke room lease and maintenance cost	Schedule 1 X % who will construct smoke rooms X 150 square feet X Schedule 2.

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## Nationwide Lease and Maintenance Cost Estimate for "Smoking Rooms"

Schedule 1 -- ESTABLISHMENTS BY INDUSTRY BY NUMBER OF EMPLOYEES (table 845)

INDUSTRY	lt 20 emp	20 to 99 emp	100 to 499 emp	500 to 999 emp	1000 and up emp	TOTAL
Agricultural Services	87,000	4,000	0	0	0	91,000
Mining	24,000	5,000	1,000	0	0	30,000
Construction	532,000	41,000	4,000	0	0	577,000
Manufacturing	249,000	88,000	31,000	4,000	2,000	374,000
Transportation	199,000	37,000	8,000	1,000	0	245,000
Wholesale Trade	409,000	62,000	7,000	0	0	478,000
Retail Trade	1,314,000	209,000	24,000	1,000	0	1,548,000
Finance and Insurance	521,000	48,000	7,000	1,000	0	577,000
Services	1,920,000	180,000	37,000	3,000	2,000	2,142,000
Other	137,000	0	0	-1,000	2,000	138,000
<b>Totals</b>	<b>5,392,000</b>	<b>674,000</b>	<b>119,000</b>	<b>9,000</b>	<b>6,000</b>	<b>6,200,000</b>

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Schedule 2 -- LEASE AND OPERATING COST PER SQUARE FOOT (IFMA Research Report #13, p60)

INDUSTRY	lt 20 emp	20 to 99 emp	100 to 499 emp	500 to 999 emp	1000 and up emp
Agricultural Services	\$11.82	\$11.82	\$11.82	\$11.82	\$11.82
Mining	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24
Construction	\$12.17	\$12.17	\$12.17	\$12.17	\$12.17
Manufacturing	\$8.72	\$8.72	\$8.72	\$8.72	\$8.72
Transportation	\$12.17	\$12.17	\$12.17	\$12.17	\$12.17
Wholesale Trade	\$9.84	\$9.84	\$9.84	\$9.84	\$9.84
Retail Trade	\$9.84	\$9.84	\$9.84	\$9.84	\$9.84
Finance and Insurance	\$13.50	\$13.50	\$13.50	\$13.50	\$13.50
Services	\$11.82	\$11.82	\$11.82	\$11.82	\$11.82
Other	\$12.17	\$12.17	\$12.17	\$12.17	\$12.17

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## Nationwide Lease and Maintenance Cost Estimate for "Smoking Rooms"

### Schedule 3 -- LOW ESTIMATE FOR TOTAL ANNUAL SMOKEROOM LEASE/MAINT COST

INDUSTRY	lt 20 emp	0 to 99 emp	100 to 499 emp	500 to 999 emp	1000 and up emp	TOTAL
Agricultural Services	\$24,680,160	\$1,134,720	\$0	\$0	\$0	\$25,814,880
Mining	\$5,898,240	\$1,228,800	\$245,760	\$0	\$0	\$7,372,800
Construction	\$155,386,560	\$11,975,280	\$1,168,320	\$0	\$0	\$168,530,160
Manufacturing	\$52,110,720	\$18,416,640	\$6,487,680	\$837,120	\$418,560	\$78,270,720
Transportation	\$58,123,920	\$10,806,960	\$2,336,640	\$292,080	\$0	\$71,559,600
Wholesale Trade	\$96,589,440	\$14,641,920	\$1,653,120	\$0	\$0	\$112,884,480
Retail Trade	\$310,314,240	\$49,357,440	\$5,667,840	\$236,160	\$0	\$365,575,680
Finance and Insurance	\$168,804,000	\$15,552,000	\$2,268,000	\$324,000	\$0	\$186,948,000
Services	\$544,665,600	\$51,062,400	\$10,496,160	\$851,040	\$567,360	\$607,642,560
Other	\$40,014,960	\$0	\$0	(\$292,080)	\$584,160	\$40,307,040
<b>Totals</b>	<b>\$1,456,587,840</b>	<b>\$174,176,160</b>	<b>\$30,323,520</b>	<b>\$2,248,320</b>	<b>\$1,570,080</b>	<b>\$1,664,905,920</b>

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### Schedule 4 -- HIGH ESTIMATE FOR TOTAL ANNUAL SMOKEROOM LEASE/MAINT COST

INDUSTRY	lt 20 emp	20 to 99 emp	100 to 499 emp	500 to 999 emp	1000 and up emp	TOTAL
Agricultural Services	\$53,987,850	\$2,482,200	\$0	\$0	\$0	\$56,470,050
Mining	\$12,902,400	\$2,688,000	\$537,600	\$0	\$0	\$16,128,000
Construction	\$339,908,100	\$26,195,925	\$2,555,700	\$0	\$0	\$368,659,725
Manufacturing	\$113,992,200	\$40,286,400	\$14,191,800	\$1,831,200	\$915,600	\$171,217,200
Transportation	\$127,146,075	\$23,640,225	\$5,111,400	\$638,925	\$0	\$156,536,625
Wholesale Trade	\$211,289,400	\$32,029,200	\$3,616,200	\$0	\$0	\$246,934,800
Retail Trade	\$678,812,400	\$107,969,400	\$12,398,400	\$516,600	\$0	\$799,696,800
Finance and Insurance	\$369,258,750	\$34,020,000	\$4,961,250	\$708,750	\$0	\$408,948,750
Services	\$1,191,456,000	\$111,699,000	\$22,960,350	\$1,861,650	\$1,241,100	\$1,329,218,100
Other	\$87,532,725	\$0	\$0	(\$638,925)	\$1,277,850	\$88,171,650
<b>Totals</b>	<b>\$3,186,285,900</b>	<b>\$381,010,350</b>	<b>\$66,332,700</b>	<b>\$4,918,200</b>	<b>\$3,434,550</b>	<b>\$3,641,981,700</b>

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## Appendix 1-F

### In It's Analysis of Smoking Rooms, OSHA Failed to Account for Furniture Costs

#### Literature

*Cost Estimate For Typical Smoking Lounges In High Rise Office Buildings, and Manufacturing Plants, The Fletcher Group (Philip Morris, Ex. 427-1).*

Post-Hearing Comment of Jason Pierce, Ex. 468.

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G

Appendix 1-G

Nationwide Cost Estimate for "Smoking  
Rooms" Furniture

[See Attached Calculation]

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## NATIONWIDE COST ESTIMATE FOR "SMOKING ROOMS" FURNITURE

This series of schedules is a forecasting model for costs related to furnishing smoking rooms that meet OSHA proposed rules.

In order to provide flexibility in the model, costs are presented by major industry category (agricultural services, mining, construction, etc.) and by strata of establishment employee size (less than 20 employees, 20 to 90, etc.).

The model calculates the nationwide one-time furniture cost as follows:

Total number of establishments in U.S.  
X      Percentage of establishments who will construct smoke rooms  
=      Total number of smoke rooms to be constructed  
X      Cost to furnish  
=      Total one-time furniture cost

Using the assumptions explained on the next page, the model yields the following results:

	<u>Low Estimate</u>	<u>High Estimate</u>
• One-time furniture costs	\$2,976,000,000	\$10,389,960,000
• Annual cost assuming 20 year financing at 10% interest	\$349,559,843	\$ 1,220,400,803

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### MODEL ASSUMPTIONS

SCHEDULE #	ASSUMPTION	SOURCE
1	Number of establishments by number of employees	Statistical Abstract of the United States - 1994 - Table 845.
	Percentage of establishments who will construct smoke rooms	National Economic Research Associates, Inc. (NERA); Post-Hearing Comments on Proposed Rules on Indoor Air Quality; July 6, 1995; Dr. Albert L. Nichols and Dr. Mark Dreyfus; page 17 estimates that between 28% and 61% of establishments not already restricting smoking would participate. NERA's Comments on Economic Costs and Benefits of OSHA's Proposed Rules on Smoking in the Workplace, August 11, 1994, page 34 estimates those not restricting smoking to be 58% (100% - 42%). Therefore, an estimate of 16% (58% X 28%) is used for a low estimate and an estimate of 35% (58% X 61%) is used for a high estimate for these calculations.
	Cost to furnish a smoke room	Cost Estimates for Typical Smoking Lounges; August 1995; George W. Fletcher, PE, Jim Neal, AIA, and Warren Maddox, PE; page 2. This reference documents 2 levels of smoking room furniture costs ranging from \$4,788 to \$14,736 (see pages 2,3). For the purpose of these calculations, \$3,000 is used for a low estimate and the cost for furnishing a smoking room in a high rise of \$4,788 is used for the high estimate.
2	Low estimate for total Furniture Costs	Schedule 1 X % of establishments who will construct smoke rooms X cost to furnish a smoke room.
3	High estimate for total Furniture Costs	Schedule 1 X % of establishments who will construct smoke rooms X cost to furnish a smoke room.

## Nationwide Cost Estimate for "Smoking Rooms" Furniture Cost

### Schedule 1 -- ESTABLISHMENTS BY INDUSTRY BY NUMBER OF EMPLOYEES (table 845)

INDUSTRY	lt 20 emp	20 to 99 emp	100 to 499 emp	500 to 999 emp	1000 and up emp	TOTAL
Agricultural Services	87,000	4,000	0	0	0	91,000
Mining	24,000	5,000	1,000	0	0	30,000
Construction	532,000	41,000	4,000	0	0	577,000
Manufacturing	249,000	88,000	31,000	4,000	2,000	374,000
Transportation	199,000	37,000	8,000	1,000	0	245,000
Wholesale Trade	409,000	62,000	7,000	0	0	478,000
Retail Trade	1,314,000	209,000	24,000	1,000	0	1,548,000
Finance and Insurance	521,000	48,000	7,000	1,000	0	577,000
Services	1,920,000	180,000	37,000	3,000	2,000	2,142,000
Other	137,000	0	0	-1,000	2,000	138,000
<b>Totals</b>	<b>5,392,000</b>	<b>674,000</b>	<b>119,000</b>	<b>9,000</b>	<b>6,000</b>	<b>6,200,000</b>

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### Schedule 2 -- LOW ESTIMATE FOR TOTAL SMOKEROOM FURNITURE COST

INDUSTRY	lt 20 emp	20 to 99 emp	100 to 499 emp	500 to 999 emp	1000 and up emp	TOTAL
Agricultural Services	\$41,760,000	\$1,920,000	\$0	\$0	\$0	\$43,680,000
Mining	\$11,520,000	\$2,400,000	\$480,000	\$0	\$0	14,400,000
Construction	\$255,360,000	\$19,680,000	\$1,920,000	\$0	\$0	276,960,000
Manufacturing	\$119,520,000	\$42,240,000	\$14,880,000	\$1,920,000	\$960,000	179,520,000
Transportation	\$95,520,000	\$17,760,000	\$3,840,000	\$480,000	\$0	117,600,000
Wholesale Trade	\$196,320,000	\$29,760,000	\$3,360,000	\$0	\$0	229,440,000
Retail Trade	\$630,720,000	\$100,320,000	\$11,520,000	\$480,000	\$0	743,040,000
Finance and Insurance	\$250,080,000	\$23,040,000	\$3,360,000	\$480,000	\$0	276,960,000
Services	\$921,600,000	\$86,400,000	\$17,760,000	\$1,440,000	\$960,000	1,028,160,000
Other	\$65,760,000	\$0	\$0	(\$480,000)	\$960,000	66,240,000
<b>Totals</b>	<b>\$2,588,160,000</b>	<b>\$323,520,000</b>	<b>\$57,120,000</b>	<b>\$4,320,000</b>	<b>\$2,880,000</b>	<b>\$2,976,000,000</b>

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## Nationwide Cost Estimate for "Smoking Rooms" Furniture Cost

### Schedule 3 -- HIGH ESTIMATE FOR TOTAL SMOKEROOM FURNITURE COST

INDUSTRY	lt 20 emp	20 to 99 emp	100 to 499 emp	500 to 999 emp	1000 and up emp	TOTAL
Agricultural Services	\$145,794,600	\$6,703,200	\$0	\$0	\$0	\$152,497,800
Mining	\$40,219,200	\$8,379,000	\$1,675,800	\$0	\$0	50,274,000
Construction	\$891,525,600	\$68,707,800	\$6,703,200	\$0	\$0	966,936,600
Manufacturing	\$417,274,200	\$147,470,400	\$51,949,800	\$6,703,200	\$3,351,600	626,749,200
Transportation	\$333,484,200	\$62,004,600	\$13,406,400	\$1,675,800	\$0	410,571,000
Wholesale Trade	\$685,402,200	\$103,899,600	\$11,730,600	\$0	\$0	801,032,400
Retail Trade	\$2,202,001,200	\$350,242,200	\$40,219,200	\$1,675,800	\$0	2,594,138,400
Finance and Insurance	\$873,091,800	\$80,438,400	\$11,730,600	\$1,675,800	\$0	966,936,600
Services	\$3,217,536,000	\$301,644,000	\$62,004,600	\$5,027,400	\$3,351,600	3,589,563,600
Other	\$229,584,600	\$0	\$0	(\$1,675,800)	\$3,351,600	231,260,400
<b>Totals</b>	<b>\$9,035,913,600</b>	<b>\$1,129,489,200</b>	<b>\$199,420,200</b>	<b>\$15,082,200</b>	<b>\$10,054,800</b>	<b>\$10,389,960,000</b>

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H

## Appendix 1-H

### OSHA Did Not Account For Other Costs Associated With Smoking Rooms

#### Literature

City and County of San Francisco complaint letter to Tom Adams, May 5, 1995 (Philip Morris, Ex. 416-650)

#### Testimony

- I probably could not get bank financing to build a smoking rooms since it would add no value to the building. I would have to borrow money to build the room, personally guarantee the loan, and pay interest on the loan. I would have to increase production to pay the smoking room costs. I would have to add machinery to handle the increase in work load, if he could get the increase. My payroll taxes and workers' compensation costs would increase. I would have to pay additional taxes on the "improvement", i.e. smoking room. [Frank Walker, Cinderella Cleaners, February 2, 1995, Tr. p. 14,030-14,031].
- It is not feasible for Cactus Jack's to have separate smoking and nonsmoking gaming sections. The casino cannot afford to provide each type of machine for both sections. [Steve Brown, Cactus Jack's Casino, February 2, 1995, Tr. p. 13,187].
- If the company were to provide separate facilities for smokers, this would require an addition to the current building. As the property itself is on the side of a mountain and the rear of the plant abuts the mountain, the only way to build such a room would be to move part of the mountain. City officials will not permit expansion on the sides of the plant because the plant is located in a very picturesque area. Expansion on the front is unthinkable for the same reasons. [Kenneth Snella, Berkshire Electric Cable Company, March 3, 1995, Tr. pp. 14,590-14,591]

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- I would have difficulty building an additional smoking room because I am "lot-locked". [David Waller, President Pelican State Wholesale, March 13, 1995, Tr. p. 15,091]
- The standard was drafted with an office building environment in mind, and not that of a typical restaurant. Most free-standing restaurants have multiple entrances and exits, and most restaurants located within malls or food courts are entirely open to the mall areas, with no ability to stop air flow from one area to the other. [Terrie M. Dort National Council of Chain Restaurants - National Trade Industry Group, December 6, 1994, Tr. p. 8,463].
- Smoking rooms are expensive to build in part because of legal requirements, such as for handicapped access. [Steven Dorobiala, pest control company, November 1, 1994, Tr. p. 4,731-4,732].
- The rule requires installation of smoking rooms in all four buildings in which I operate or make all four buildings smoke free. I would also have to install them in four other commercial rental buildings. According to the Oklahoma City Building Code, if I renovate an existing building, a handicapped accessible rest room will be required if not already available. Buildings are older and do not have the existing handicapped restrooms. Thus, if I were to add a smoking room, I would be required to update his restrooms to accommodate handicapped persons. The cost of a single rest room is \$8,000. [Moody Hughes, Pick-up Truck Accessories, February 6, 1995, Tr. p. 13,513]
- The cost to condition the air which is being vented outside the building can result in a significant increase in annual energy costs. [Mr. Lon Loken, November 21, 1994, Tr. p. 7081].
- I rent a piece of property on a railroad lease and subject to other city codes and if any changes are to be made, it needs to be cleared through the city. [Robert Berkner, Independent Feed and Grain Merchant, February 7, 1995, Tr. pp. 13,564-13,565].
- I do not have sufficient space to add a designated smoking room, especially in my buildings that are in the inner-city areas where local zoning ordinances will not permit additions. [Steven Dorobiala, pest control company, November 1, 1994, Tr. p. 4,727]

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- If we built a smoking lounge, it would have to be constructed inside the facility. There would be zoning problems to construct it outside the existing facility. With separate ventilation and the additional room, the smoking lounge would cost about \$40,000 to \$50,000. [Warren Wild, McBride's, Inc., February 10, 1995, Tr. p. 13,845].
- I do not have the space to build a separate smoking room in the building. It would be impossible to add on to the building because of the odd shape of the lot, with a railroad line bordering on the north side, the parking lot of a restaurant on the south side and east side of his building. Also, the local zoning ordinances require a certain number of parking spaces and adding on to the building would eliminate those required parking spaces. [Tim Urban, Sioux Empire Hobbies, Inc., February 21, 1995, Tr. p. 13,991]
- The regulation would not be feasible because the dealership is located on Main Street in Del Rapids with a building on one side and a building on the other side and streets in both front and back. No room to expand. Additionally, I am not sure the City is going to let me build an addition. [Justin Dearduff, Dearduff Chevrolet/Pontiac, January 31, 1995, Tr. p. 12,996]
- The building Young & Associates operates out of is a historical landmark. The lot on which it sits barely has enough room for building itself. The room that we do have, the space, all the rooms are taken up or used for some purpose. To implement the standard would be impossible. We wouldn't have the space inside so we would have to build on. To build onto the building would be modifying a historic landmark which would probably be violating some existing codes. [J. Paige DuBoise, Young & Associates, February 6, 1995, Tr. p. 13,439]
- The city in which the business is located will not allow construction of an additional room on facility. [James Matthews, Jim's Service Center, March 2, 1995, Tr. p. 14,482]
- Would not be permitted because of my location to add an additional smoking room. [Kathy Kinsey, Kathy's Hair Care Center, March 3, 1995, Tr. p. 14,574]
- Local ordinances would likely restrict my ability to add a smoking room on one of her locations. [Marlene Schroeder, Owner of a bakery, March 13, 1995, Tr. p. 15,116]

- The modifications necessary for the smoking room's separate ventilation system would be more difficult since the building is in a historical district requiring many specifications for modifications and changes to the building. [Michael Purtell Gipes Associates, architectural firm, December 2, 1994, Tr. p. 8,148].

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## Appendix 2

OSHA Did Not Account for the  
Significant Productivity Losses  
That Will Occur If the Smoking Provisions  
Are Implemented

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**A**

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## Appendix 2-A

### Forcing Employees to Leave Work Areas Lowers Overall Productivity

#### Literature

*Overall Report: Smoking and Productivity in the Work Place, a Nationwide Survey Among First Level Supervisors in Business and Industry, First Level Supervisors in Government, Local Union Officials, Response Analysis Corporation, April 1984* (Philip Morris, Ex. 416-68)

*Creating the 'Sweat Shop' of the '90s; Does Lean and Mean Have to be Inhumane as Well?, Tom Brown, Industry Week, Vol. 244, No. 5, p. 31(1), March 6, 1995* (Philip Morris, Ex. 416-70)

Unofficial Tape Transcription of (Repace/Collia) Session 2155, Smoking, Alcohol and Drugs (SAD) in the Workplace, 1994 APHA Annual Meeting, Washington, D.C., October 30-November 3, 1994. (Philip Morris, Ex. 416-73)

*Smoking and the State, Social Costs, Rent Seeking, and Public Policy, R.D. Tollison, R.E. Wagner, Lexington Books, 1988, Chapter 5. Nonsmokers, External Costs, and State Regulation* (Philip Morris, Ex. 416-92)

Transcript, in the matter of: Prohibiting Smoking in the Workplace, hearing, December 9, 1993, Crownsville, Maryland (Philip Morris, Ex. 416-208)

*The Economic Impact of Instituting An Indoor Smoking Prohibition in Oregon, James Savarese and Associates, Inc., August 1988* (Philip Morris, Ex. 416-221)

Testimony of Gray Robertson, President Healthy Buildings International, Inc., House Energy/Health and the Environment Antismoking Regulations, Federal Document Clearing House Congressional Testimony, March 17, 1994 (Philip Morris, Ex. 416-512)

*Maryland Businesses Face Looming Smoking Ban, Tom Stuckey, Associated Press, March 26, 1995 (Philip Morris, Ex. 416-519)*

*NYC Restaurant Owners Angry and Bewildered Over Passage of Citywide Smoking Ban; "Politically Correct," Antibusiness Legislation Expected to Negatively Impact City's Hospitality Industry, Business Wire, December 21, 1994 (Philip Morris, Ex. 416-659)*

*Smoking in the Workplace: A Management Perspective, D.H. Vaughn, Employee Relations, 1992 (Philip Morris, Ex. 416-123)*

Post-Hearing Comments of WABCO (WABCO Ex. 401)

Post-Hearing Comments of Rocky Mountain Supply (Rocky Mounty Supply, Ex. 326)

Post-Hearing Comments of Henard Metal Fabricators (Henard, Ex. 341)

Post-Hearing Comments of Lookout Valley Tool & Supply (Lookout Vally, Ex. 408)

Post-Hearing Comments of Griffin & Co. (Griffin & Co., Ex. 474)

### Testimony

- Productivity would certainly decline if my employees are required to smoke in a specially designed smoking area. We would lose productivity whether employees go outside or go to a designated room. [Trent Burroughs, AGR Industrial Supply Company, Burroughs Repair Company, February 9, 1995, Tr. pp. 13,824, 13,830].
- If smoking is not allowed in my office, we're going to have to go six floors down and outside the building to hold this conference. [William B. Baggott, Baggott Insurance Agency, February 7, 1995, Tr. p. 13,531].
- The guys in our shop who smoke are going to have to leave the building every time they want to smoke a cigarette. [Gail Veseley, Argo Industries, February 7, 1995, Tr. p. 13,542].
- Employees would have to go outside to smoke. That would lower our productivity. Employees currently can smoke while working. If they had to take a break and go outside to smoke, that would diminish their productivity quite significantly. The employees currently get two breaks. These break times also are used for employee meetings. Under the proposed ETS

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regulation, the company would have to set aside even more time for the employees to come together and have employee meetings. That would further decrease productivity. Even if the company built a smoking room, productivity still would be hurt because employees no longer would be able to smoke while working. [Warren Wild, McBride's, Inc. February 10, 1995, Tr. pp. 13844; 13,849-13,851; 13,853].

- The proposed rule would result in decreased production because employees would be taking more unscheduled breaks from their work in order to smoke. I would definitely lose production time. Our machines are high speed computerized machines, some loaded manually by workers every minute and 43 seconds. Those are the machines that would suffer the most. I would lose money on that end. [Kenneth Webb, Webb Industries, February 10, 1995, Tr. p. 13,893-13,894].
- The smoking restrictions might reduce productivity. [Steven Dorobiala, Pest-Control Company, November 1, 1994, Tr. p. 4,730]
- To leave my home office to take a smoke break would severely hamper my productivity, and I could not continue in my present job. [Donna Thompson, Employment Research Services, November 1, 1994, Tr. p. 4,786].
- If you, in effect, ban smoking in the workplace, it would have a very negative impact on productivity. [William McCarty, President and Chief Executive Officer of McCarty Hull, Inc., November 1, 1994, Tr. p. 4,832].
- It would not be practical to have employees go outside and smoke because it does get cold in Nashville too, and I don't have time to pay a man to go outside and smoke for 20 minutes. Also, employees object to not being able to smoke. [Margie Ronson, Music City Auto Care Products, February 3, 1995, Tr. p. 13,316].
- I have designated areas for them to smoke and nowhere else. If they go outside to smoke, I feel that my productivity and attendance would possibly drop because when I might need them, they would be outside. In this type of business you don't know when a customer is coming or when he needs something so you have to be alert all the time. If you are, let's say, outside smoking, then he's going to say where's my help. [Peter Karangelen, Kent Lounge, February 3, 1995, Tr. pp. 13,321; 13,324].

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- If this rule were to pass, our productivity rate from our five smoking employees would drop in half. These five people are heavy smokers and, if they had to leave the building to smoke or go into a smoking room every half hour, we might as well close our doors because we could never get anything done. [Matthew Swanson, Brengie Sales & Service, February 2, 1995, Tr. p. 13,198].
- I sincerely fear for my business and, if I am made to be a policeman on this, it would just be one more thing I could not do. Bottom line, if this were enforced, my productivity would be affected severely. [Joey Christiansen, John Deere Dealerships, February 8, 1995, Tr. p. 13,732].
- Productivity would also be lost. Employees would have to stop working, walk to a separate area and smoke. Due to the competitive nature of this particular business, I could not afford to lose worker productivity. The net effect would be that they would lose jobs to foreign competition. [A.T. (Tom) VanEtten, Griffin & Company, January 3, 1995, Tr. p. 12,959].
- If my employees that smoke, and all of them smoke, had to go outside to have a cigarette during their work day because I cannot afford to build a designated smoking area, that would cost me a lot of money in lost productivity. [Eddy Giel, University Place Restaurant, October 24, 1994, Tr. p. 3,549-3,550].
- Productivity would also be affected if the rule were implemented. Employees would probably be outside more than they would be inside and therefore they would not be working. Mohrlange Manufacturing's productivity is the key to success because of the competitiveness of the industry. [Jade Lammers, Mohrlange Manufacturing, February 1, 1995, Tr. p. 13,069].
- Another reason the regulation would not be a good idea is because it would decrease productivity since every time somebody wanted to have a cigarette they would have to leave and go outside since the company could probably not be able to build a smoking room. [Justin Dearduff, Dearduff Chevrolet /Pontiac, January 31, 1995, Tr. p. 12,996].
- If you have a 45,000 or 57,000 sq. ft. building, it may take you six minutes to walk down to a smoking room and then you're already late getting back to your work station on a 10 minute break and you haven't even had a cigarette yet. [Murphy Heird, Tee Jay's Manufacturing, February 6, 1995, Tr. p. 13,452].

- Requiring employees to leave the building or to go to a separate room to smoke would affect productivity. I think it would sure slow them down. I just don't think it would work. I really don't. I don't see how it could work. [Moody Hughes, Pick-Up Truck Accessories, February 6, 1995, Tr. p. 13,520].
- It would be very detrimental for crew who carries freight from picking line to the warehouse to have to take smoke breaks. It would adversely affect productivity. [Jimmy Allison, Allison Wholesale, March 2, 1995, Tr. p. 14,515].
- If I had to have people leave my residence to smoke, there would be a significant waste of time and it would greatly affect productivity. [Richard Kunkel, Consultant Services, March 3, 1995, Tr. p. 14,548].
- I'm going to lose productivity if employees have to go outside and smoke. Taking a break, a scheduled break, would mean that they would have to leave their desk and leave their telephone which is very vital to our business. When someone calls with a need or a service request, it's important that person be there to answer that request. If an employee is working and smokes, does that employee close the office to go outside? So the phone rings and nobody answers it? (Lin Boyd, Independent Insurance Agent, February 7, 1995, Tr. pp. 13,571; 13,582-13,583).
- I have observed that productivity was higher when people were allowed to smoke at their desk since they could get work done as they smoked. [Raymond Scannell, Bakery, Confectionery and Tobacco Workers, October 11, 1994, Tr. p. 2,775].
- I do not permit smoking by employees inside the facility. On very busy days, the employees are sometimes required to stay for a few hours after the time they usually would go home. I have learned by experience that if I strictly enforce a no smoking policy during this additional working period, productivity drops and the quality of the product drops. That is the time when I need the employees' efforts the most because they are behind schedule or they are working to meet a deadline. [Frank Walker, Cinderella Cleaners, February 21, 1995, Tr. p. 14,027-14,028].
- I could not allow my employees to go outside for a cigarette because I basically require them to work every second that they are on the clock. It would drastically decrease productivity to allow them to take a smoking break. [James Matthews, Jim's Service Center, March 2, 1995, Tr. p. 14,481].

- Instead of existing flexible schedule for breaks, I would have to institute a break system of 10 minutes in the morning and 10 minutes in the afternoon which would cause a decrease in productivity. [James Lee Montgomery, March 3, 1995, Tr. p. 14,554].
- Employees smoke while they work. Requiring employees to go into a separate room would also amount to a loss of productivity because smoking employees would have to stop work to smoke and with so few employees it is important that we be as productive as possible to compete with larger heating and cooling businesses in the area. Additionally, employee morale would be another problem if this ban were passed. [Alfredo Ramirez, Denny's Appliance, January 30, 1995, Tr. p. 12,873-12,874].
- How can my mechanics turn wrenches when they are standing outside smoking or in a designated smoking room? How can they be productive? All these things concern me greatly. [Pete Tilghman, Jr., Tilghman Chevrolet, February 6, 1995, Tr. p. 13,497].
- If one or two of my employees are required to take smoke breaks their productivity is reduced as well as Cavalon's profit. The work of the employees requires concentration and dedication and some of the employees smoke while they are doing their work. [Mike Cavalon, South Georgia Mill Works, Inc., January 30, 1995, Tr. p. 12,829].
- I have part-time employees that run certain specific press jobs for me at night and these employees smoke. These employees are skilled craftsmen and have been printing for years. It might take these employees an hour or so to even set up on a particular job and under the proposed rule, if they decided they wanted to smoke a cigarette they would have to shut down the press, go outside or wherever and smoke a cigarette. By the time they actually got the job going, Capps would be out quite a bit of money at paying them such a high wage. Additionally, if employees left the machine running and walked off and left it unattended to smoke a cigarette all kinds of things could go wrong with the machinery. The current policy at Royal Printing is that smoking is allowed throughout the premises. I could not afford to pay the skilled pressmen that work at night to take breaks to smoke. [Don Michael Capps, Royal Printing Company, January 31, 1995, Tr. p. 12,975, 12,976, 12,978].
- The employees can smoke as they work. It would not be practical for the employees to go outside and smoke because

their part of the production would shut down when they leave to go smoke. [Lucy Welejski, Dothan Instant Printing, February 24, 1995, Tr. p. 14,197].

- Because of their duties, much of the employees' work is monitoring equipment. Employees do not take breaks. So, if a guy wanted to smoke, he'd have to shut the mill down and even if the helper wanted to smoke, it would have to be shut down because I will not let one person be at a piece of machinery by themselves. [Edward Slaven, Philadelphia Flatware, February 8, 1995, Tr. p. 13,653].
- If a secretary has to leave her work area to take a smoke break, she will be less productive than a secretary who is able to smoke while working. [Robert Collison, Kendall-Collison, Inc., February 21, 1995, Tr. p. 14,006-14,007].
- If my employees and I cannot smoke in our offices while we work, our productivity will decrease when we have to go another place to smoke. As productivity would be lower, we would be less able to make a living. [Marge Dahlquist, Dahlquist Realty, February 21, 1995, Tr. p. 14,013].
- With regard to prohibiting an employee from smoking in a workplace, most employees are very busy and cannot stop to take a break but rather stop for an instant to take a quick puff while working. [Jim Naughton, VFW, November 1, 1994, Tr. p. 4,710].
- By banning smoking, our productivity would decrease because we would not be able to mix the product while the men are outside on a smoke break. A little bit of change in productivity has a multiplying effect on the profit and that's what I keep trying to train our employees is to try and be more productive with your day; i.e., a mixer works in room by himself, if he has to go to smoking room, he is less productive. [Calvin Overdorff, Quaker Sales Corporation, February 7, 1995, Tr. pp. 13,613; 13,623-13,624].
- The machines we have would have to be shut off for the employees to leave to take smoking breaks, thus, the machines would be idle in that time resulting in a loss of productivity. If I allowed employees to go out to a smoke room or outside when they wanted to smoke, it would decrease their time at their work stations thereby adversely affecting productivity. (Philip Pederson, DC Machine, February 3, 1995, Tr. p. 13,253].

- The proposed rule would make it necessary for my bartenders to go outside and leave the bar unattended in order to have a smoke break. [Gus Haramis, Gus's Getaway, February 6, 1995, Tr. pp. 13,487-13,488].
- A separate room is impractical because he would lose valuable production time from his employees. [Phil Howell, Retail Motorcycle Business, February 9, 1995, Tr. pp. 13,810; 13,811].
- All our employees already are very busy doing their respective jobs. If they had to fill in for other workers or the dispatchers while the other workers went to take a smoking break, the company would either have to pay them overtime to get their own work done after hours or the company would have to hire more employees. This company is struggling to emerge from Chapter 11 bankruptcy and could not afford to pay such overtime or hire more employees. [Karol Brown, Point to Point, Inc., February 10, 1995, Tr. p. 13,882-13,883].
- There appears to be a substantial diminishment in productivity, especially among clerical people, who have to get up from their position, go to a closet, get a coat, go down 32 stories, go outside, meet a friend, have their cigarette, and come back. We would lose 40-50 minutes of each half day for people to take two breaks in the morning and two breaks in the afternoon. The feeling is if you eliminated nothing more than the travel time and the socializing time, and allowed just for the smoking of the cigarette, that you would probably decrease the productivity change by about 50%, so we think it's rather significant. We're talking about a 20-25% loss in productivity among people who are leaving the building to smoke. We think that can be reduced to 12% of people who would only have to go to a product like this. [Frank Barnes, Manufacturer of a designated Smoking System, November 1, 1994, Tr. p. 4,869].
- Not being able to smoke would be devastating to my business. If my employee or I had to go to a separate room, it would mean 10 minutes out of each hour away from the shop. This would equal a total of 1-1/2 hours a day, each day. This would be a 20 percent loss every day, in the gross income of the small business. [Jill Evangelista, Touch of Class, January 30, 1995, Tr. p. 12,895].
- Even during the summer, if employees went outside for smoking breaks, the business would be unmanned. I would lose sales because the business would have to be closed for 10-15 minutes

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while the employee was taking a smoking break. [Tim Urban, Sioux Empire Hobbies, Inc., February 21, 1995, Tr. p. 13,992].

- As an employer who attempted to ban smoking in my facility, I noticed a drastic decline in productivity and employee morale during the first two weeks of the ban. I therefore lifted the ban and allowed my employees to smoke at their work stations as long as they agreed to take a little more care in disposing of their cigarette butts. [James Ferguson, American Polish and Plating Corporation, October 26, 1994, Tr. p. 4,025].
- WISHA [Washington] is analogous to OSHA's proposed rule and has had adverse affects on productivity and morale. It has turned employers into smoking police. [Diane Michalek, Aviation West, October 27, 1994, Tr. pp. 4,052-4,053].
- Productivity and employee morale have declined since the enactment of the Washington State regulations. Furthermore, hostility among employees is on the increase because the smokers demand more breaks and they spend more time on those breaks. [Diane Michalek, Aviation West, October 27, 1994, Tr. pp. 4,052-4,053].
- Because of the layout of the work area, if the employees are not allowed to smoke at work, they would have to travel more than 30 minutes round trip to smoke. Because, in reality, the employees cannot afford to travel 30 minutes, since the enactment of the Washington State regulation, the managers and supervisors have complained that they spend half their time trying to find their employees and generally find them smoking in places where smoking isn't allowed. The managers also have complained that work is disrupted and there have been confrontations between the smokers and non-smokers concerning delegation of responsibilities. [Diane Michalek, Aviation West, October 27, 1995, Tr. pp. 4,054-4,055].
- Prior to enactment of the Washington Smoking restriction, one of our contracts required a staff of 22 employees to fulfill the obligations of the contract. Since the smoking restrictions have taken place, it has taken a staff of 26 employees to perform the same task. This increase in employees has been necessary even though the contract has been reduced by 2 flights a day. I attribute this need for additional employees on the fact that the employees are hunting for places to have a cigarette. [Diane Michalek, Aviation West, October 27, 1994, Tr. p. 4,071].
- Employees would not be able to take smoking breaks, regardless whether there is a smoking room or not. The company runs a 24

hour a day, continuous operation. We cannot shut down the machines, or the plastic product would harden. The employees smoke while they are working. There is only one person to do one job. If an employee had to leave his work to take a smoking break, a working supervisor would have to fill in or another employee would have to be pulled off another job. [Karen Christiansen, Synthetics International, Inc., February 24, 1995, Tr.p. 14,208-14,209].

- We could not perform loan processing and financial matters outside the office; the result would be loss of productivity. [Stan Carver, Southeast Georgia Farm Credit, February 9, 1995, Tr. p. 13,784].
- I am definitely more productive when I can smoke at my desk. I am the only one there. I have to be there to catch the phones, to make sure that if someone does walk through the door to greet them, and being able to smoke at my desk helps me to continue working and take care of all these things. [J. Paige DuBois, Young & Associates, February 6, 1995, Tr. p. 13,445].
- I estimate it would cost the company one-half hour each day per smoking employee in lost productivity for the employees to have to go to a smoking room to smoke. About 50% of the 80 employees are smokers. I estimate the company would suffer about \$50,080 per year every year in lost productivity. [Tom Pharr, Powell Manufacturing Company, January 13, 1995, Tr. pp. 11,316-11,317].
- The ban on smoking would make workers at Metal Works less productive if they had to leave their work stations to take a smoke break outside the facility since Metal Works could not afford to build a separate smoking lounge for the company. [Mike Ingallinera, Metal Works Corporation, January 30, 1995, Tr. p. 12,836].

**B**

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**Appendix 2-B**

**Nationwide Productivity Loss Caused  
by OSHA Rule**

**[See Attached Calculation]**

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## NATIONWIDE PRODUCTIVITY LOSS CAUSED BY OSHA RULE

This schedule is a model for estimating the cost of production time lost in order to comply with OSHA proposed rules. This model incorporates the following assumptions:

- 1) Establishments will institute a break policy that allows smokers to retire to an area to smoke.
- 2) Establishments affected will be:
  - a) Those who have not heretofore banned smoking.
  - b) Those who have heretofore allowed smoking at work positions or who allowed work to be conducted in smoke areas.
  - c) Those who have not heretofore already implemented a smoking policy and, therefore, already absorbed any productivity losses.

The model calculates the annual productivity loss as follows:

Total number of employees

X Percentage of establishments affected by OSHA proposed rules

= Total number of establishments affected

X Percentage of employees affected by OSHA proposed rules

= Total number of employees affected

X Additional daily breaks needed for OSHA compliance

= Total additional daily breaks needed

X Break duration in minutes

= Total daily break minutes

X 220 work days per year

= Total annual additional break minutes

÷ 60 minutes per hour

= Total annual lost hours of productivity

X Hourly labor rate

= Annual cost of lost productivity

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Based on the assumptions and calculations presented on the pages that follow, the annual productivity loss caused by the proposed OSHA rules would be \$14,275,476,600 if smokers and non-smokers received equal breaks. If only the smokers received breaks, the annual productivity loss would be \$3,852,951,134.

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**MODEL ASSUMPTIONS**

NUMBER	ASSUMPTION	SOURCE
1	Total employees	Statistical Abstract of the United States - 1994 - Table 641.
2	Percentage of establishments affected	Assumed to be 10% for the forecast presented. This appears to be a conservative estimate based on data contained in National Economic Research Associates, Inc. (NERA); Comments on Economic Costs and Benefits of OSHA's Proposed Rules on Smoking in the Workplace; August 11, 1994; pages 25 and 26. In a NERA analysis of a 1992 DHHS Survey, it appears that 13.2% (100% - 86.8%) of large and 34.8% (100% - 65.2%) of small establishments (< 50 employees) are not currently covered by smoking policies. These establishments will be forced to alter current policies by proposed rules.
3	Percentage of employees affected	Schedule 1 assumes that 100% of employees are affected. That is, smokers and non-smokers will receive equal break time.  Schedule 2 assumes that only smokers will receive additional breaks. For these calculations, it is assumed that 26.99% of employees are smokers.
4	Additional daily breaks needed for OSHA	Assumed to be 2 breaks per day.
5	Break duration in minutes	Assumed to be 15 which includes time to get to and from the break area.
6	Hours of lost productivity	Total employees X % of establishments X Additional daily breaks needed X Break duration in minutes ÷ 60 minutes per hour X 220 work days per year
7	Hourly labor rate	Statistical Abstract of the United States - 1994 - Table 656.
8	Annual cost of lost productivity	Hours of lost productivity X Hourly labor rate

## Nationwide Productivity Loss Caused by OSHA Rule

Schedule 1 -- Assume all employees are effected (smokers and non-smokers)

INDUSTRY	TOTAL EMPLOYEES (table 641)	PERCENTAGE OF ESTABLISHMENTS EFFECTED	PERCENTAGE OF EMPLOYEES EFFECTED	ADDITIONAL					ANNUAL COST OF LOST PRODUCTIVITY
				DAILY BREAKS NEEDED FOR OSHA COMPLIANCE	BREAK DURATION IN MINUTES	HOURS OF LOST PRODUCTIVITY	HOURLY LABOR RATE (table 656)		
Agricultural Services	3,074,000	10%	100%	2	15	33,814,000	\$10.83	\$366,205,620	
Mining	669,000	10%	100%	2	15	7,359,000	\$14.60	\$107,441,400	
Construction	7,220,000	10%	100%	2	15	79,420,000	\$14.35	\$1,139,677,000	
Manufacturing	19,557,000	10%	100%	2	15	215,127,000	\$11.76	\$2,529,893,520	
Transportation	8,481,000	10%	100%	2	15	93,291,000	\$13.64	\$1,272,489,240	
Wholesale Trade	4,606,000	10%	100%	2	15	50,666,000	\$11.71	\$593,298,860	
Retail Trade	20,163,000	10%	100%	2	15	221,793,000	\$7.29	\$1,616,870,970	
Finance and Insurance	7,962,000	10%	100%	2	15	87,582,000	\$11.32	\$991,428,240	
Services	41,817,000	10%	100%	2	15	459,987,000	\$10.81	\$4,972,459,470	
Other	5,756,000	10%	100%	2	15	63,316,000	\$10.83	\$685,712,280	
<b>Totals</b>	<b>119,305,000</b>					<b>1,312,355,000</b>		<b>\$14,275,476,600</b>	

Schedule 2 -- Assume only employees who smoke are effected

INDUSTRY	TOTAL EMPLOYEES (table 641)	PERCENTAGE OF ESTABLISHMENTS EFFECTED	PERCENTAGE OF EMPLOYEES EFFECTED	ADDITIONAL					ANNUAL COST OF LOST PRODUCTIVITY
				DAILY BREAKS NEEDED FOR OSHA COMPLIANCE	BREAK DURATION IN MINUTES	HOURS OF LOST PRODUCTIVITY	HOURLY LABOR RATE (table 656)		
Agricultural Services	3,074,000	10%	26.99%	2	15	9,126,399	\$10.83	\$98,838,897	
Mining	669,000	10%	26.99%	2	15	1,986,194	\$14.60	\$28,998,434	
Construction	7,220,000	10%	26.99%	2	15	21,435,458	\$14.35	\$307,598,822	
Manufacturing	19,557,000	10%	26.99%	2	15	58,062,777	\$11.76	\$682,818,261	
Transportation	8,481,000	10%	26.99%	2	15	25,179,241	\$13.64	\$343,444,846	
Wholesale Trade	4,606,000	10%	26.99%	2	15	13,674,753	\$11.71	\$160,131,362	
Retail Trade	20,163,000	10%	26.99%	2	15	59,861,931	\$7.29	\$436,393,475	
Finance and Insurance	7,962,000	10%	26.99%	2	15	23,638,382	\$11.32	\$267,586,482	
Services	41,817,000	10%	26.99%	2	15	124,150,491	\$10.81	\$1,342,066,811	
Other	5,756,000	10%	26.99%	2	15	17,088,988	\$10.83	\$185,073,744	
<b>Totals</b>	<b>119,305,000</b>					<b>354,204,615</b>		<b>\$3,852,951,134</b>	

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## Appendix 2-C

### OSHA Ignores the Effect on Morale of Its Smoking Ban

#### Testimony

- Probably half the company's employees are smokers. They are insulted that they may not be able to smoke or use their tobacco products in their work area. Regulating and taking away the employees' freedom to smoke would definitely lower their morale. [Kenneth Webb, Webb Industries, February 10, 1995, Tr. p. 13,886-13,888].
- If the rule were implemented, we would have to restrict employees' smoking to their break times which is going to cause a lot of stress and a lot of lost morale. [Jade Lammers, Mohrlange Manufacturing, February 1, 1995, Tr. p. 13,079].
- If required to build a separate free-standing room enclosed with outside ventilation this would go against the grain of the team concept which has taken years to develop at the company. By requiring smokers to go into a separate smoking room to smoke, you are segregating the smoker employees from the non-smoker employees and this is not good for the team concept. Management has already worked out an agreement between smokers and nonsmokers being especially sensitive to freedom of choice. Since most decisions of the Company are based on a team concept, implementing OSHA's proposed regulation on smoking would have an adverse affect on the morale of the employees. [Rick Lewis, Winter Bell Company, February 1, 1995, Tr. pp. 13,152-13,153; 13,162].
- A smoking ban would cause more stress in an already stressful environment and would affect productivity and morale drastically. It is not a job where you could put someone on hold and go take a break. [Debrah Baker, Pro Rental Management Company, March 2, 1995, Tr. p. 14,469].
- Genesee Manufacturing's productivity would be very handicapped if employees had to leave their areas to smoke since the company is set up in a production line fashion. If employees have to shut down their machines to go outside and smoke, the

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morale could come down and so would productivity. [Terry Cicote, Genesee Manufacturing Company, January 30, 1995, Tr. pp. 12,841-12,842].

- Most employees smoke and I could not tell them not to smoke because it would definitely affect their motivation and team spirit. [Leo DeJong, President of Metric Fasteners Corporation and American Fasteners Corporation, March 3, 1995, Tr. p. 14,607].
- If we had to impose a policy that didn't make sense, we'd have a drop in morale. Some people there understand that they're not mad at me, they're mad at the rule, but it affects morale when they have to pull something like this that they don't understand and they don't see a reason for. When morale goes down, problems skyrocket, production drops, and it is not a fun place to work anymore. [Murphy Heird, Tee Jay's Manufacturing, February 6 1995, Tr. p. 13,466].
- The proposed rule on ETS would adversely affect employee morale. The employees would resent regulation of their smoking. [Warren Wild, McBride's, Inc., February 10, 1995, Tr. p. 13,850].
- If employees were not allowed to smoke, it would absolutely kill the morale in my shop. If the employees' morale decreased (due to regulating their smoking), absenteeism would increase. [Jerry Stewart, Stewart's Truck Equipment, Inc., February 10, 1995, Tr. p. 13,857; 13,867].
- The proposed standard would lower the morale of many people, number one, because now they can smoke where they're happy with that situation. [Mel Parsell, National Tech Systems, November 1, 1994, Tr. p. 4,808].
- Our plant works on an incentive system where all employees make the bonus or none so it requires very strong team workmanship. If anything is disturbing the morale of our employees, it is going to seriously affect their ability to perform and affect their earnings. (George E. Staples, President, Clinch Tight Corporation, February 2, 1995, Tr. p. 13,234].
- I would have to probably compromise this issue with employees having to smoke outside which is definitely not a morale builder when your employees have to suffer with the weather outside. [Robert Hale, Lee Dee Wholesale Distributing, February 8, 1995, Tr. p. 13,682].

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- If employees were not permitted to smoke, the employees would be resentful and the company would hear comments like "why are they trying to control everything I do? What's going to be next?" [Jerry Stewart, Stewart's Truck Equipment, Inc., February 10, 1995, Tr. p. 13,857].
- The proposed ETS rule would hurt employee morale. If smoking employees were no longer allowed to smoke on the job, they would feel a benefit was being taken away from them. As for the nonsmokers, they would feel discriminated against because the smokers would be able to take breaks to go smoke while the nonsmokers could not. [Karen Christiansen, Synthetics International, Inc., February 24, 1995, Tr. p. 14,209-14,210].
- We have two fellows working together, one a non-smoker and one a smoker, and the smoker shuts down, goes and smokes a cigarette, and he's costing the non-smoker money, I could have problems between the two of them. [Edward Slaven, Philadelphia Flatware, February 8, 1995, Tr. p. 13,663].
- Somebody that's dissatisfied generally does not even want to be there. As a result, they're going to do what they have to get by and they're going to be sloppy and I also think that leads to accidents. (Edward Slaven, Philadelphia Flatware, February 8, 1995, Tr. p. 13,664].
- Prior to the office smoking ban in Washington State, we had successfully and efficiently accommodated both smokers and non-smokers in the offices. Each of the employees had their own private office and smoking was allowed in the private office. The employees were satisfied with this policy. [Diane Michalek, Aviation West, October 27, 1994, Tr. pp. 4,053-4,054].
- The employees are friends and neighbors, and want to socialize together. If you have to provide a break room for smokers and one for nonsmokers, the smoking and nonsmoking employees still would mingle. The second break room would be useless. [Audrey Weeks, Destiny Industries, February 24, 1995, Tr. p. 14,224, 14,232-14,234].
- It would be very difficult to tell employees, who are like members of the family, that they cannot smoke. [Jimmy Allison, Allison Wholesale, March 2, 1995, Tr. pp. 14,513-14,514].
- It would be very difficult to ask employees who smoke to leave the showroom area. [David Hicks, David's Automotive, March 3, 1995, Tr. p. 14,537].

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## Appendix 2-D

### OSHA Has Not Considered the Impact of Its "Ban" On the Overall Work Force and Labor Markets

#### Testimony

- Office employees are allowed to smoke while they work. The cost of complying with the proposed regulation is jeopardizing any future raises for the employees of Sioux Merchant Patrol. The proposed regulation will not only hurt businesses financially, it will lower morale and productivity. [Grayce Wingen, Sioux Merchant Patrol, Inc., February 1, 1995, Tr. pp. 13,103-13,104]
- Two secretaries smoke and if they went outside to smoke, we'd have to cover them on answering the phone and the other duties while they were out there. (Calvin Overdorff, Quaker Sales Corporation, February 7, 1995, Tr. p. 13,613].
- In the community college business office where my wife worked, a smoking ban resulted in such decreased productivity that three additional employees were needed to handle the same workload. [William McCarty, President and Chief Executive Officer of McCarty Hull, Inc., November 1, 1994, Tr. p. 4,831].
- Regarding bartenders, I would perhaps have to have a designated hitter or pinch hitter that goes to the bar for him to watch the bar while he goes and smokes. That would be outrageous to have somebody just standing by for something like that. It would be unreal, I mean, I wouldn't even think of it. All of my employees smoke. I don't. I doubt if any of them would want to work in a smoke free shop. [Peter Karangelen, Kent Lounge, February 3, 1995, Tr. pp. 13,321; 13,327].
- If the smoking restrictions took effect, I would need to hire two to three more employees. [Robert Hale, Lee Dee Wholesale Distributing, February 8, 1995, Tr. p. 13,687].

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- The time spent studying and complying with OSHA regulations could have been spent finding jobs for the unemployed people for whom the temporary employment agency is trying to find jobs. Limiting smoking in the workplace will cause some businesses to downsize or to go out of business and will thus decrease available jobs. It will be harder for the employment agency to find people work when there are less available jobs. [Kandace Brown-Pullin, Service Connection, also runs her own business, Alternative Labor Source, Inc., February 10, 1995, Tr. p. 13,900-13,901].
- Somebody that's dissatisfied generally does not even want to be there. As a result, they're going to do what they have to get by and they're going to be sloppy and I also think that leads to accidents. (Edward Slaven, Philadelphia Flatware, February 8, 1995, Tr. pp. 13,663-13,664].
- If I were forced to ban smoking in my building, it would likely cause me to lose valued employees who also enjoy this freedom. [Phil Howell, Retail Motorcycle Business, February 9, 1995, Tr. p. 13,810].
- We could threaten to fire the employees if they fail to refrain from smoking in the work area, but I would be firing six of my best employees. Our jobs are highly skilled, you can't just place an ad in the paper for a steel fabricator. It requires a high level of skill. [Gail Vesely, Argo Industries, February 7, 1995, Tr. p. 13,543].
- For a labor market that's already short of people needed for this type of operation, both skilled and unskilled, it makes finding qualified personnel harder to find in already bad or tight situations. [Robert Berkner, Independent Feed and Grain Merchant, February 7, 1995, Tr. p. 13,565].
- Compliance with the proposed Rule may decrease the employees' bonuses. I would be very displeased every day and I may consider selling the business and doing something else if I couldn't sit in my own office and smoke a cigar. Some of my employees would probably change jobs to do work outside if the company limited their ability to smoke at work. [Kenneth Webb, Webb Industries, February 10, 1995, Tr. pp. 13,888; 13,892].
- Approximately 80% of my employees smoke and several of my key employees have indicated they would leave if these rules were enforced. Building a separate smoking room would be very costly and would take funds that might be spent to create new

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jobs. [George Staples, President, Clinch Tight Corporation, February 2, 1995, Tr. pp. 13,233-13,234].

- It is difficult to find a qualified mechanic familiar with farm equipment. The company goes to great expense training its mechanics. If these mechanics were not allowed to smoke while working, the company could lose them to competitors that do not comply with the proposed rule or do not need to comply. Even if all the businesses in the area were to comply with the proposed rule, the mechanics could go to work for a farm where they could smoke outside. The loss of these employees would be devastating to my business. [Kevin Sandberg, Sandberg Implement Co., February 21, 1995, Tr. p. 13,980].
- I risk losing experienced employees permanently if I enforce a no smoking policy during overtime hours. Thus, I have become more flexible on the issue during the high stress periods, and will not confront the smoking issue. When I strictly enforced my no smoking policy, I lost employees. I went through a horrendous time of not meeting deadlines and poor quality in my product. When I liberalized my no smoking policy, I was able to keep the better people employed. [Frank Walker, Cinderella Cleaners, February 21, 1995, Tr. p. 14,228; 14,235-14,236].
- Smoking is not banned in the facility because of the difficulty in finding replacement employees in a small town of 2,000 people that could actually do the job. The labor force is simply not there. It takes approximately 3 months to train a new person and if that has to be done, it means that money is lost since productivity is not where it should be. [Ruth Cole Dusenbury, Speer Cushion, January 31, 1995, Tr. p. 12,935].
- The Company's greatest competitor is the local government which could make accommodations provided for in the Rule that this Company could not. Employees may chose to go to places where they could be accommodated rather than banning smoking. [Ruth Cole Dusenbury, Speer Cushion, January 31, 1995, Tr. p. 12,947].
- The ban on smoking would have an adverse affect not only on my customer base but also on employees at Subway. Several employees told me that they would quit if I implemented a smoking ban in my facility. [Bradley Adams, Subway Sandwich Shop, February 1, 1995, Tr. pp. 13,134-13,135].
- The smoking ban would cost me additional money in customers and training of someone new to do the work of the day crew

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since turnover would be higher if a ban were implemented. If I lost one of the employees, I would have to go back to having 7 employees that were untrained on the food line instead of the three highly trained employees that I now have. This would create a lot more payroll expense and time and effort on Adams part in training the new employees. [Bradley Adams, Subway Sandwich Shopp, February 1, 1995, Tr. p. 13,136].

- Enforcing a smoking ban on employees will likely result in employee attrition. [Mark Hodroff, Retail Specialty Pet Store, March 13, 1995, Tr. p. 14,999].
- I would likely lose employees to competitors that have the advantage of building a smoking facility. [David Waller, President, Pelican State Wholesale, March 13, 1995, Tr. p. 15,092].
- Regarding the health of food service employees, I believe that restaurant employees with easily transferable skills increasingly will have more choices regarding where to work, i.e., in a nonsmoking restaurant or in a restaurant which allows smoking. [William Fisher, Executive Vice President of the National Restaurant Association, October 24, 1994, Tr. p. 3,644].
- The loss of sales caused by smoking bans in restaurants would be borne by the employees. Restaurants would have small profit margins and would reduce labor costs to make up for lost sales. [William Fisher, W. W. Naylor, and James Britt, National Restaurant Association, October 24, 1994, Tr. p. 3,702-3,707].
- Compliance with the proposed rule may decrease the employees' bonuses. [Kenneth Webb, Webb Industries, February 10, 1995, Tr. p. 13,888].
- Everyone would be better served if the money spent on the smoking room could go toward raises, retirement plans, improved equipment and upgrading our employees' and our standard of living. [Jerry Stewart, Stewart's Truck Equipment, Inc., February 10, 1995, Tr. p. 13,860].
- All the profits since I started the business have gone back into the business and to my employees, to purchase current equipment, to create more jobs, and to the employee benefit package such as health insurance, vacations, and paid holidays. Building a separate room is not an option I can afford. [Philip Pederson, DC Machine, February 3, 1995, Tr. p. 13,252].

- We do not have pre-planned breaks. We adjust to the day's schedule and work accordingly. The expense Builders Supply would incur to stay competitive with a national chain by having a designated smoking area would definitely affect our profitability. Inevitably, it would affect employees' share of pension profit plans. [Lee Saufley, Builders Supply Window Company & Hardware Store, February 2, 1995, Tr. p. 13,216].
- This would even affect the five non-smokers because if their retirement is not substantial, they too will look to the government for supplemental support. [Lee Saufley, Builders Supply Window Company & Hardware Store, February 2, 1995, Tr. p. 13,216].
- My business has no product to sell other than service. When I police my employees I have lost their loyalty and their cooperation. My business cannot survive without these things and if my business does not survive there are 100 families that are going to be out of work, smokers and non-smokers alike. [Diane Michalek, Aviation West, October 27, 1995, Tr. p. 4.057].
- If the company had to provide a smoking area where work and lunch breaks could not take place, it would impose a burdensome task on the company to cross-train employees to cover for regular employees when they left their work to take a smoke break. [Karol Brown, Point to Point, Inc., February 10, 1995, Tr. p. 13,870-13,871].
- People cannot be cross-trained to fill in for dispatchers to take smoking breaks. Dispatchers need to be able to work while taking a smoke break. A dispatcher can never know from one minute to the next when he will be needed and no one else in the office can give his directions or his answers to his plans or his thoughts for any given moment. [Karol Brown, Point to Point, Inc., February 10, 1995, Tr. p. 13,871].
- Due to the excessive costs of complying with this proposed regulation, some employers may consider not hiring a smoker to avoid this expensive and costly installation. [Robert Hale, Lee Dee Wholesale Distributing, February 8, 1995, Tr. p. 13, 680].

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### Appendix 3

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